

Appl. No. 10/064,215
Amdt. dated November 15, 2005
Reply to Office action of August 23, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

- 1 (currently amended): A data clock recovery circuit for generating an output signal that is
- 5 synchronized with an input signal; the data clock recovery circuit comprising:
- a charge pump for generating a charging current according to a phase difference
- between the input signal and the output signal;
- a first filter electrically connected to the charge pump for generating an output
- voltage corresponding to the charging current;
- 10 ~~an oscillator for adjusting a phase or frequency of the output signal according to a~~
- ~~voltage;~~
- a second filter for adjusting the output voltage of the first filter;
- a switch circuit electrically connected in series between the first filter and the
- ~~oscillator second filter~~ for controlling the electrical connection between the first
- 15 filter and the ~~oscillator second filter~~; and
- ~~a second filter electrically connected between the switch circuit and the oscillator for~~
- ~~adjusting the output voltage of the first filter;~~
- an oscillator for adjusting a phase or frequency of the output signal according to a
- voltage;
- 20 wherein when the charge pump is operating, the switch circuit disconnects the first
- filter from the oscillator, and when the charge pump stops operating, the switch
- circuit connects the first filter and the oscillator such that the oscillator adjusts
- the frequency or phase of the output signal according to the output voltage of
- the first filter.
- 25
- 2 (currently amended): The data clock recovery circuit of claim 1 wherein the second
- filter comprises at least a second capacitor; when the switch circuit connects the first

Appl. No. 10/064,215
Amdt. dated November 15, 2005
Reply to Office action of August 23, 2005

filter and the ~~oscillator~~ second filter, the second capacitor is charged or discharged by the output voltage of the first filter so as to change a waveform of the output voltage.

5 3 (currently amended): The ~~data~~ clock recovery circuit of claim 2 wherein the first filter comprises at least a first capacitor, and the charging current charges or discharges the first capacitor for changing the output voltage of the first filter.

10 4 (currently amended): A ~~data~~ clock recovery method for generating an output signal that is synchronized with an input signal;
the method comprising:
generating a charging current according to a phase difference between the input signal and the output signal;
generating an output voltage according to the charging current with a first filter; and
15 adjusting the output voltage of the first filter with a second filter;
connecting a switch in series between the first filter and the second filter; and
closing the switch for adjusting a frequency or phase of the output signal only after a waveform of the output voltage has been stable.

20 5 (cancelled).